

Friedrich Vogel 1925–2006

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Friedrich Vogel, Professor of Human Genetics at the University of Heidelberg and former director of the Institute of Human Genetics, died on 5 August 2006. Having recovered from two serious illnesses during the last 10 years of his life, he suffered from disability throughout his final year.

As a young man, Vogel had experienced a fate typical of his contemporaries. He left school in 1944 and was conscripted into the Wehrmacht, becoming a Russian prisoner of war in 1945. In the autumn of the same year he was fortunate enough to be discharged back to Germany on the grounds of ill health, a Russian military doctor presumably having felt sympathy for the intelligent young man. Vogel returned to his home town of Berlin and commenced his medical studies at what proved to be the beginning of the cold war period.

The strategic planner

Having completed his medical education and internship in 1953, Vogel made a characteristically groundbreaking decision. He approached Hans Nachtsheim,

Director of the Max-Planck-Institute for Comparative Genetics in Berlin-Dahlem, to request training in human genetics. Nachtsheim was astonished that a young medical doctor should wish to pursue a career in this field. During the 12 years of its existence, the Nazi regime had used genetic pseudoscience to justify racism, enforced sterilisation, euthanasia, and, ultimately, the holocaust, and the study of human genetics was consequently considered obsolete and discredited in post-war Germany. Vogel must have foreseen that human genetics would have a renaissance.

Having commenced his career in human genetics, Vogel quickly recognized the need for mathematical competence and took the very unusual step of paying for private tuition. J.B.S. Haldane became his role model. One of Vogel's later strengths was the formal mathematical analysis of modes of inheritance, mutation rates and evolutionary mechanisms. The basis for his competence in this field was laid in these early days.

In 1958 Vogel spent several months with James Neel at the Department of Human Genetics in Ann Arbor, which was at that time one of the largest academic institutions in the field. The two geneticists became friends, and Vogel had the very useful opportunity of observing the organisational structure of a large institution.

After a couple of years in Heidelberg, Vogel began to fear that everyday life at the institute absorbed him too much. He felt the need for space in order to read, to acquire new knowledge, and to be creative. He therefore accepted the opportunity of spending two 9-month periods as a member of a "think tank", once for the Institute of Advanced Studies in Behavioral Sciences at Stanford, and once for the Wissenschaftskolleg in Berlin. He avoided distractions by cutting all

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ties to his institute during these times, a feat facilitated by the fact that Fax and Email did not exist at that time. His only concession was to visit the institute for a day at Christmas to talk briefly to the research groups and wish them success with their ongoing work before disappearing once more. He possessed the ability of always being able to recognise and acknowledge his needs, and was resolute in his decision making.

The scientist

Vogel was a man of enormous energy and was always full of new ideas, constantly striving to discover something genuinely new. In the decade following the Second World War, the poorly founded fear of degeneration which had developed in the Nineteenth century had not completely disappeared. His first scientific endeavour was to examine the mutation rate in retinoblastoma. He applied mutation-selection models to estimate the incidence of retinoblastoma amongst newborns, and subsequently worked on many aspects of population genetics and human evolution. He rapidly concluded from this work that eugenic concepts had no rational basis.

Vogel's favourite research topic throughout his career was the genetic correlates of the human electroencephalogram. He examined a large series of twins, defined extreme variants of the EEG, analysed their mode of inheritance and searched for psychological correlations. The Institute of Human Genetics in Heidelberg was certainly the only institute of its kind to possess equipment for the automatic analysis of EEGs at that time. His work in this field made him internationally renowned, particularly amongst neurophysiologists.

Vogel always listened to the views of students and young scientists with interest and patience, and was a constant source of inspiration to his own research team. When convinced of the merits of any project he had been asked to review, he did everything in his power to support the responsible researcher and open up their career pathways.

The organizer

In 1962 Vogel was appointed to the chair of the newly established Institute of Human Genetics in Heidelberg. He devoted major resources to research on chemical mutagenesis in mammals, a new scientific topic, and applied a typically systematic approach. One researcher examined the influence of mutagenesis on

spermatogenesis, another its influence on oogenesis, and a third focussed on the influence of mutagenesis on somatic tissue. Vogel was an innovator: he identified a problem, developed a strategy, set trends. Others followed his lead.

In 1964 Vogel was appointed as editor of the new journal "Humangenetik", known since 1976 as "Human Genetics". Before the new journal could appear it had been necessary to address a very delicate issue. Vogel had sensed that the editors of the traditional preceding journal, also published by Springer, lacked the qualities necessary to take human genetic research forward to new horizons. The 38 year old Friedrich Vogel managed to convince the scientific establishment of this view and publication of the old journal was discontinued. Volume 1 of "Humangenetik" appeared, and the young community of German human geneticists at last gained access to the international stage.

It was due to Friedrich Vogel's reputation that the International Congress of Human Genetics took place in Berlin in 1986. The Berlin Wall was still in existence, and there were few possibilities for Eastern Block scientists to visit western countries. Through Vogel's personal contacts with East German and Eastern European colleagues, delegates from communist countries were able to stay in East Berlin and commute to the congress centre in West Berlin, and to pay the congress fees in East German currency. The conference abstract book was also printed in East Berlin. Vogel contributed to change through rapprochement. Whatever he did, he did with imagination and ambition.

The author

Vogel was an industrious author. During his career he published a dozen books and more than 300 articles. He made most effective use of his intellectual ability under unpretentious conditions, sitting at a desk illuminated by only a single desk lamp. It was in such conditions that he wrote his textbook on general human genetics at the age of 36. This book paved the way to his becoming the doyen of the field in Germany.

Friedrich Vogel's monumental work was the encyclopaedic textbook "Human Genetics. Problems and Approaches," co-authored by Arno Motulsky. It appeared in three editions between 1979 and 1997 and was translated into several languages. Vogel regarded human genetics as the bridge between theoretical genetics and clinical science, a view which is clearly reflected in this landmark textbook. The book is also a tribute to the history of human genetics, bringing the

past into an understandable relationship with the future.

The scholar

Vogel possessed a scholar's curiosity, the answer to a question serving only as the basis for a new question. He had an exceptional memory and a keen ability to rapidly activate his engrams. For him, scientific meetings had the air of a medieval tournament: He considered them as competitions conducted with fairness, competence and style. Vogel commented on many of the scientific papers presented, and frequently added a new dimension to discussions of presented data. When prominent colleagues favoured hypotheses that he

regarded as false, he was a formidable and uncompromising opponent in debate. In discussions with young scientists, however, he was unfailingly mild and courteous, nurturing their developing research instincts.

It was characteristic of Friedrich Vogel that he analysed every problem, whatever its nature, scientifically. He once spoke in a seminar about the sociological aspects of working in a research team. For him, a research team could only be successful if a minimum level of compliance and harmony existed, creating an atmosphere of openness and confidence. He was a man who enjoyed inviting students, colleagues, and team members to his home. He always required a balance between rationality and emotionality.

Friedrich Vogel was a unique and visionary man with an extraordinary spectrum of abilities.